## SEQUENCE LISTING

```
<110> Nazarenko, Irina
      Rashtchian, Ayoub
<120> Improved Primers and Methods for the Detection and
      Discrimination of Nucleic Acids
<130> 0942.4980002
<140>
<141>
<150> 60/175,959
<151> 2000-01-13
<150> 60/139,890
<151> 1999-06-22
<160> 43
<170> PatentIn Ver. 2.1
<210> 1
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
      Oligonucleotide
<220>
<221> protein bind
<222> (18)
<223> fluorescein labeled
<400> 1
                                                                    23
ccttctcatg gtggctgtag aac
<210> 2
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
      Oligonucleotide
<220>
<221> protein bind
<222> (1)
<223> fluorescein labeled
<400> 2
                                                                    23
ccttctcatg gtggctgtag aac
```

<210> 3 <211> 23

<210> 7 <211> 20

<212> <213>	DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> gttcta	3 acage caccatgaga agg	23
<210> <211> <212> <213>	23	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (23) TAMRA labeled	
<400> ggggct	4 gcga ctgtgctccg gca	23
<210> <211> <212> <213>	23	
	Description of Artificial Sequence: Oligonucleotide	
<400> tgccgg	5 ragea cagtegeage eec	23
<210> <211> <212> <213>	20	
	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (1) fluorescein labeled	
<400> aataat	6 agga tgaggcagga	20

	-3-	
<212> DNA <213> Art	ificial Sequence	
	cription of Artificial Sequence:	
<222> (1)	otein_bind DIPY 530/550 labeled	
<400> 7 aataatagg	a tgaggcagga	20
<210> 8 <211> 20 <212> DNA <213> Art	ificial Sequence	
	cription of Artificial Sequence: gonucleotide	
<400> 8 tcctgcctc	a tootattatt	20
<210> 9 <211> 23 <212> DNA <213> Art	ificial Sequence	
	cription of Artificial Sequence: gonucleotide	
<400> 9 gagttgacc	g taacagacat ctt	23
<210> 10 <211> 24 <212> DNA <213> Art	ificial Sequence	
	cription of Artificial Sequence: gonucleotide	
<220> <221> pro <222> (17 <223> fluc		
<400> 10 ggcattgcc	g acaggatgta gaag	24
<210> 11 <211> 18		

· · · · · · · · · · · · · · · · · · ·	
<212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 11 gggccggact cgtcatac	18
<210> 12 <211> 28 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<220> <221> protein_bind <222> (6) <223> fluorescein labeled	
<400> 12 ggttgtagag cactcagcac aatgaaga	28
<210> 13 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 13 gagttgaccg taacagacat ctt	23
<210> 14 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 14 ccttctcatg gtggctgtag aac	23
<210> 15 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:	

## Oligonucleotide

<400> ccttct	15 ccatg gtggctgtag aat	23
<210> <211> <212> <213>	24	
	Description of Artificial Sequence: Oligonucleotide	
<400> gtgtcc	16 ettet catggtgget gtag	24
<210> <211> <212> <213>	24	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> gtgtcc	17 ettet catggtgget gtat	24
<210> <211> <212> <213>	23	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (18) fluorescein labeled	
<400> ccttct	18 ceatg gtggetgtag aac	23
<210> <211> <212> <213>	23	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<220> <221> <222>	<pre>protein_bind (18)</pre>	

<223>	fluorescein labeled	
<400> ccttc	19 tcatg gtggctgtag aat	23
<210><211><211><212><213>	24	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (22) fluorescein labeled	
<400> gtgtc	20 cttct catggtggct gtag	24
<210><211><212><212><213>	24	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (22) fluorescein labeled	
<400> gtgtco	21 cttct catggtggct gtat	24
<210><211><211><212><213>	25	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<222>	protein_bind (23) fluorescein labeled	
<400> ctacco	22 gggtg tetgtgtete ggtag	25
<210> <211>		

<212> <213>	DNA Artificial Sequence		
<220> <223>	Description of Artificial Oligonucleotide	Sequence:	
<400> cgtaco	23 ctggc tatctgtgtc		20
<210> <211> <212> <213>	20		
<220> <223>	Description of Artificial Oligonucleotide	Sequence:	
<400> cgtaco	24 etgge tatetgtgtt		20
<210><211><211><212><213>	20		
<220> <223>	Description of Artificial Oligonucleotide	Sequence:	
<400> gacaco	25 ctggc tatctgtgtc		20
<210> <211> <212> <213>	22		
<220> <223>	Description of Artificial Oligonucleotide	Sequence:	
<400> aacaca	26 acctg gctatctgtg tt		22
<210><211><211><212><213>	27		
<220> <223>	Description of Artificial Oligonucleotide	Sequence:	
<400> ctaca	27 gteet teteatggtg getgtag		27

<210> <211> <212> <213>	25	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> cttcct	28 cgaga gccgaactgt agtga	25
<210> <211> <212> <213>	26	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> acatgt	29 attt gcatggaaaa caactc	26
<210> <211> <212> <213>	31	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> tcacta		31
<210><211><211><212><213>	33	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> gagttg		33
<210> <211> <212> <213>	24	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400>	32	

gctcagaatg atgtttccac cttc	24
<210> 33 <211> 25 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 33 aaatcatact agctcaccag caatg	25
<210> 34 <211> 30 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 34 gaaggtgctc agaatgatgt ttccaccttc	30
<210> 35 <211> 31 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 35 cattgcaaat catactaget caccagcaat g	31
<210> 36 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleotide	
<400> 36 tggcagttga atgccaagta at	22
<210> 37 <211> 20 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence:	

## Oligonucleotide

	Offgonderederide	
<400> acago	37 cactg tgcccaggtc	20
<210><211><211><212><213>	28	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> attac	38 ttggc agttgaatgc caagtaat	28
<210> <211> <212> <213>	26	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> gacct	39 gacag ccactgtgcc caggtc	26
<210> <211> <212> <213>	23	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> atttca	40 atggg ggaaacaaag atg	23
<210> <211> <212> <213>	20	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> atacct	41 tgcgc tcaccacagg	20
<210> <211> <212> <213>	30	

<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> catctt	42 ttatt tcatggggga aacaaagatg	30
<210> <211> <212> <213>	26	
<220> <223>	Description of Artificial Sequence: Oligonucleotide	
<400> cctgtg	43 gatac ctgcgctcac cacagg	26